

A<sup>1</sup>

(c) repeating said emission measurements at a second temperature;  
wherein the emission of said FRET acceptors at different temperatures provides an indication of the alleles present at said ~~multiple loci~~ <sup>three or more loci</sup>.

2  
~~13~~. The method of Claim ~~12~~ <sup>1</sup>, wherein the FRET acceptor of each of the second members of each of a first, a second and a third probe pair has an emission spectrum which is different from the emission spectrum of the others.

3  
~~14~~. The method of Claim ~~12~~ <sup>1</sup> or ~~13~~ <sup>2</sup>, wherein said nucleic acid sample is the product of one or more reactions selected from the group consisting of PCR, 3SR, SDA and RCA.

A<sup>2</sup>

~~4~~ ~~15~~. (Amended) The method of Claim ~~12~~ <sup>1</sup> or ~~13~~ <sup>2</sup>, wherein at least one probe comprises two FRET acceptors, two FRET donors or a FRET acceptor and a FRET donor, and said probe is a member of two different probe pairs.  
16.

~~6~~ ~~17~~. The method of Claim ~~16~~ <sup>5</sup>, wherein said range of temperatures is from at least 20° C to at most 95° C.

A<sup>3</sup>

~~7~~ ~~18~~. (Amended) The method of Claim ~~16~~ <sup>5</sup>, wherein said emission measurements are repeated at least every 0.1 to 10 seconds.

~~8~~ ~~19~~. The method of Claim ~~18~~ <sup>7</sup>, wherein the temperature is varied at least 0.01 to 1°C per second.

~~9~~ ~~20~~. The method of Claim ~~12~~ <sup>1</sup> or ~~13~~ <sup>2</sup>, wherein said emission measurements at a particular temperature are simultaneous.

~~10~~ ~~21~~. The method of Claim ~~12~~ <sup>1</sup> or ~~13~~ <sup>2</sup>, wherein at least one of said FRET acceptors is selected from the group consisting of LC Red 640, Cy 5, Cy 5.5 and LC Red 705.

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<sup>11</sup>/<sub>22</sub>. The method of Claim <sup>1</sup>/~~12~~ or <sup>2</sup>/~~13~~ wherein said emission measurements are corrected for spectral overlap between or among the different fluorophores.